wherein the shoulder ends of the tyre are axially opposite one another relative to an equatorial plane of the tyre, and

wherein the tread pattern comprises:

two lateral rows of grooves; and

at least one third row of grooves;

wherein the at least one third row of grooves is arranged between the lateral rows,

wherein, within each row, the grooves are circumferentially spaced from one another,

wherein the grooves of the lateral rows axially extend from respective shoulder ends of the tyre to predetermined distances from the equatorial plane of the tyre,

wherein all of the grooves are separate from one another so as to produce a pattern with no intercommunicating paths between the grooves,

wherein ends of the grooves of the at least one third row are far from the shoulder ends of the tyre,

wherein end portions of the grooves of the at least one third row extend outside a footprint of the tyre, and

wherein a greater dimension of each of the grooves of the at least one third row relative to a length of the tyre footprint allow water drainage from underneath the tyre footprint.

32. (new) The tyre of claim 31, wherein a maximum distance between two points of each groove of the at least one third row, measured in a circumferential direction, is greater than a length of the tyre footprint when the tyre is inflated to nominal operating pressure and subjected to nominal load under static conditions.

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33. (new) The tyre of claim 31, wherein each groove of the at least one third row comprises a substantially-straight portion extending, at a predetermined inclination angle with respect to the equatorial plane of the tyre, between a first end, far from a first shoulder end of the tyre, and a second end, far from a second shoulder end of the tyre.

34. (new) The tyre of claim 33, wherein the grooves of the at least one third row comprise two end portions of the substantially-straight portion shaped according to curved arcs having opposite curvatures to one another.

35. (new) The tyre of claim 31, wherein the grooves of a first lateral row comprise a form different from the grooves of a second lateral row.

36. (new) The tyre of claim 31, wherein each groove of a first lateral row:

starts from a first shoulder end of the tyre; and

ends in a first straight portion forming an acute angle having a predetermined value with respect to the equatorial plane of the tyre;

wherein the first straight portion comprises a direction opposite to that of a second straight portion of each groove of a second lateral row with respect to the equatorial plane of the tyre.

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37. (new) The tyre of claim 31, wherein the grooves of a first lateral row extend from a shoulder end of the tyre with inclinations comprising, with respect to the equatorial plane of the tyre, a direction opposite to that of the grooves of a second lateral row.

38. (new) The tyre of claim 31, further comprising:

a fourth row of grooves circumferentially spaced from one another;

wherein the fourth row of grooves are separate from the lateral rows of grooves and the at least one third row of grooves,

wherein the grooves of the fourth row start from a shoulder end of the tyre, between two adjacent grooves of a first lateral row, and

wherein the grooves of the fourth row end between two adjacent grooves of the at least one third row.

39. (new) The tyre of claim 38, wherein:

the grooves of the first lateral row and the grooves of the at least one third row form first trajectories;

the grooves of the fourth row and the grooves of a second lateral row form second trajectories;

the first and second trajectories alternate with one another;

the first and second trajectories are circumferentially spaced;

the first and second trajectories comprise a substantially-undulating shape with peaks aligned on a circumferential plane parallel to the equatorial plane of the tyre;

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the first trajectories comprise an interruption between the grooves of the first lateral row and the grooves of the at least one third row; and

the second trajectories comprise an interruption between the grooves of the fourth row and the grooves of the second lateral row.

40. (new) The tyre of claim 31, further comprising:

a fifth row of grooves arranged between the lateral rows;

wherein the grooves of the fifth row are circumferentially spaced from one another,

wherein the grooves of the fifth row are separate from those of the lateral rows of grooves and the at least one third row of grooves, and

wherein the at least one third row of grooves and the fifth row of grooves are symmetrical with one another relative to the equatorial plane of the tyre.

41. (new) A tyre for a vehicle wheel, comprising:

a tread band;

wherein the tread band comprises:

a tread pattern;

wherein the tread pattern is defined between two shoulder ends of the tyre,

wherein the shoulder ends of the tyre are axially opposite one another relative to an equatorial plane of the tyre, and

wherein the tread pattern comprises:

multiple rows of grooves;

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wherein, within at least one internal row of the grooves, the grooves are circumferentially spaced from one another,

wherein the at least one internal row of grooves comprises means for acoustically signalling an air pressure value lower than a predefined limit,

wherein the means requires a first dimension, in a direction of travel, of one or more grooves of the at least one internal row to be greater than a second dimension of a footprint of the tyre in a same direction,

wherein the first and second dimensions are measured with the tyre inflated at nominal operating pressure and subjected to nominal load under static conditions, and

wherein, in case of pressure values lower than the predefined limit, the second dimension assumes a quantity at least equal to the first dimension,

wherein, in the case of pressure values lower than the predefined limit, a relationship between the second and first dimensions causes air retention in the one or more grooves of the at least one internal row inside the tyre footprint during contact with the ground, and

wherein, in the case of pressure values lower than the predefined limit, the relationship between the second and first dimensions causes instantaneous expulsion of at least some of the air when at least one portion of the one or more grooves of the at least one internal row pass outside the tyre footprint.

42. (new) A method for checking a value of air pressure inside a tyre for a vehicle wheel, comprising:

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forming, between two axially-opposite shoulder ends of a tread pattern of a tread band of the tyre, at least one row of grooves circumferentially spaced from one another;

assigning to at least several successive grooves of the at least one row at least one first dimension greater than a second dimension of a tyre footprint under inflation conditions and nominal load;

checking, under static load conditions with a tyre air pressure below a predefined value, whether the at least one first dimension is suitable for allowing enclosure of air underneath the tyre footprint and expulsion of at least some of the air with noise outside the tyre footprint; and

if an outcome of the checking is negative, modifying the at least one first dimension and a number of grooves of the at least several successive grooves until an acoustic signal is produced indicating a lower air pressure inside the tyre.

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43. (new) An acoustic signaling device for a vehicle wheel, comprising:

several groups of grooves in a tread pattern of a tyre of the vehicle wheel;

wherein at least one axially-internal row of grooves comprises a plurality of grooves circumferentially spaced from one another,

wherein one or more predetermined grooves of the at least one internal row comprise:

a first dimension of a footprint of the tyre greater than a second dimension of the footprint measured at nominal tyre air pressure under static load, and

the first dimension smaller than or equal to the second dimension measured with tyre air pressure lower than a predefined limit.

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44. (new) A tread band for a vehicle tyre, comprising:

at least one lateral row and one central row of grooves defined in a tread pattern extending in a direction substantially longitudinal to a direction of forward travel of the tyre;

wherein the at least one lateral row and one central row of grooves define an essentially-continuous portion of the tread band between two shoulder ends of the tyre,

wherein the shoulder ends of the tyre are axially opposite one another relative to an equatorial plane of the tyre,

wherein the at least one lateral row and one central row of grooves are suitable for producing a directional pattern, and

wherein ends of the grooves of the central row are located far from the shoulder ends.

45. (new) A method for indicating a reduction in an inflation pressure of a tyre comprising a tread pattern, comprising:

varying a noise level of the tread pattern upon variation of the inflation pressure of the tyre.--

REMARKS

Applicants submit this Second Preliminary Amendment, accompanied by a Response to Restriction Requirement, in reply to the Office Action mailed December 26, 2002.

In this Second Preliminary Amendment, Applicants cancel, without prejudice or disclaimer, claims 16-30, and add new claims 31-45, to improve clarity. The originally-filed

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